\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
Product: Daily Forecast of Geomagnetic Activity
Issued: 2025 February 01 11:14UTC
Prepared by the Athens Space Weather Forecasting Center
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

**I. Solar activity**
*--Current Status*
Solar Flux (10.7cm) measured on 31.01.2025 at 23:00 UTC was 207 sfu.
The background X-Ray flux is at the class C1.4 level.
No obviously Earth directed CMEs were observed in available LASCO imagery on January 27-29.
Two M-class solar flares were produced on January 31 and the largest was the M6.8.
AR3978 erupted on January 31 at 14:06 UT peak time producing a M6.8-Class solar flare and a radio blackout of category R2.
An equatorial coronal hole (CH1268) will be Earth facing position on January 28-February 01.

**II. Solar Energetic Particle Events**
Protons and electrons fluxes are quiet.

**III. Interplanetary and Geomagnetic conditions**
The solar wind speed measured by ACE satellite reached the max value 566 Km/s on February 01 at 10:50 UT during the last 24 hours.
The solar wind speed from STEREO A was detected 400 Km/s during the last 24 hours.
The vertical component of IMF Bz reached the max value -16 nT on February 01 at 00:30 UT during the last 24 hours.
The geomagnetic field was at quiet to active levels during the last 24 hours.
The Kp index now is at active levels with Kp=4.

**IV. 3-day Geomagnetic Activity Forecast**
The geomagnetic field is expected to be at quiet to active levels with a chance of minor storm (G1) levels on February 01-02 due to the effect of the recurrent coronal hole high speed stream and at quiet levels on February 03.

|  |  |  |
| --- | --- | --- |
| **Date** | **Ap index forecast** | **Geomagnetic Activity level** |
| 01.02.2025 | 20 | Quiet to Active |
| 02.02.2025 | 12 | Quiet to Active |
| 03.02.2025 | 05 | Quiet |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
Athens Space Weather Forecasting Center
Physics Department, National & Kapodistrian University of Athens
Athens Neutron Monitor Station A.NE.MO.S
Tel.: +30 210 727 6901
email: spaceweather@phys.uoa.gr
URL: http://spaceweather.phys.uoa.gr
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*